

Jeopardy Assessment

Proposed Incidental Take Permit: Davis In Lieu Fee Wetland Mitigation Project (ITP 316)

Species: Blanchard's Cricket Frog

Location: Waukesha County

Background

Project Information

This project is a wetland restoration sponsored by the Wisconsin Wetland Conservation Trust, DNR's In-lieu Fee mitigation program, to compensate for unavoidable wetland loss elsewhere in the state. The project site encompasses about 52 acres, most of which is agricultural land, and includes about 5 acres of wooded wetland along the river, a system of drainage ditches, constructed ponds, and two small woodlots.

The project will disable the drainage ditches and restore the agricultural land to native plant communities including sedge meadow, wet to wet-mesic prairie, and mesic prairie. It will improve the existing wetlands and woodlands by removing invasive non-native plant species and establishing native vegetation.

The agricultural land has been in corn and soybean production for many years, is currently fallow, and will be planted with a cover crop until construction. The wooded wetland in the floodplain of the river is dominated by large buckthorn with a few native hardwoods. Ash trees were common but have died due to emerald ash borer. Tree canopy cover exceeds 90% and consequently the ground layer has little herbaceous vegetation. The drainage ditches are steep-sided, and lined with buckthorn, honeysuckle, and few large trees (poplar, willow). The ponds have submerged and floating vegetation and are surrounded by shrubs and turfgrass. The woodlots are native hardwoods with a buckthorn understory.

Approximately 1.3 acres of habitat suitable for Blanchard's cricket frog has been identified in the project area including the constructed ponds and the open grassy areas that surround them. The north pond and the surrounding suitable habitat, shown on the project map, will only be disturbed minimally by hand seeding in the adjacent agricultural fields. The lawn around the pond will not be disturbed. Scrapes proposed in the north field will occur outside the suitable habitat.

The two ponds in the southeast corner will have a connecting culvert removed so that a single pond remains. Two additional culverts will be removed adjacent to the ponds; one will be replaced with a rock spillway. A second rock spillway will also be added to the west side of the new combined pond. Minor grading will occur near the pond to direct excess surface water to the pond and to insure a stable flowpath from the pond to the outlet stream. In addition, minor grading will occur in the southern agricultural fields north and west of the ponds for microtopography contouring. This is intended to encourage a more diverse wetland community where farming has eliminated natural topographic relief. The extent of the contouring will be consistent with USDA's [Microtopography Development, Wisconsin Biology Technical Note No. 2](#). After grading, a buffer exceeding 75 feet around the pond will be hand-seeded with native herbaceous plant species.

All construction over the 52 acres that involves soil disturbance is expected to occur in early summer to early fall (starting in June and ending October 15 or later if the cricket frogs are still active) and will take several days.

Species Information

The Blanchard's cricket frog (*Acris blanchardi*), an endangered species in Wisconsin, prefers ponds, lakes, and a variety of habitats along and adjacent to streams and rivers including, marshes, fens, sedge meadows, low prairies, and exposed mud flats. The species tends to breed in quiet water (no or low flow) and may also move from streams and rivers to adjacent wetlands and ponds. Cricket frogs cannot tolerate freezing or complete inundation for more than 24 hours during the winter and thus seek a variety of microhabitats that provide suitable overwintering conditions, including crayfish burrows, small mammal burrows, rotted-out root channels, seepage areas where groundwater flow prevents freezing at the surface or spaces created by sloughing streambanks. Cricket frogs are active from early March through November. Breeding can occur from mid-May through mid-August, with some larvae not transforming until late September.

Conservation Measures

1. The ponds and the surrounding grassy areas within the project area been identified as potential Blanchard's cricket frog habitat. No construction will occur within the north pond or the surrounding lawn; seeding that will occur within suitable habitat at the north pond will be limited to hand seeding without the use of equipment to minimize impacts. Disturbance proposed at the southeastern ponds includes removing a plastic culvert between the two ponds to form a single water body. The pond will continue to drain to a tributary to the Mukwonago River. A buried culvert in the tributary that currently backs up water will be removed and replaced with a rock spillway to restore natural channel flow. Two additional culverts will be removed adjacent to the ponds; one will be replaced with a rock spillway. A second rock spillway will also be added to the west side of the new combined pond. Disturbance at the south ponds is expected to occur in early summer/early fall to allow access in wet soils and enable vegetation to establish before winter. Timing will be from early June into as late in the year as possible, during the Cricket Frog's active season.
2. Blanchard's Cricket Frog removals will be conducted in the disturbance footprint by a qualified biologist prior to each work day/restoration activity to minimize impacts to the frogs. All Blanchard's Cricket Frogs (and preferably other amphibians and reptiles) found will be immediately removed from the disturbance area and relocated to suitable habitat at least 100 meters downstream from the project site. If Blanchard's Cricket Frogs are found on the first walk-through of the area, a second walk-through will be conducted. This process should continue until the biologist feels confident he/she has removed as many Blanchard's Cricket Frogs as possible from the disturbance area. All Blanchard's Cricket Frogs removed will be recorded (total number removed per walk-through, i.e., 2 Blanchard's Cricket Frogs removed on first walk-through, 1 Blanchard's Cricket Frog removed on second walk-through and 0 Blanchard's Cricket Frogs removed on third walk-through) and reported to Rori Paloski (rori.paloski@wi.gov) on a weekly basis. For a sample data sheet that can be used for reporting, see http://dnr.wi.gov/topic/ERReview/documents/CA_SpeciesRemovalDatasheet.pdf.
3. The individual conducting cricket frog removals must have field experience with the cricket frog and its habitat and possess a valid Endangered/Threatened (E/T) Permit or similar authorization for cricket frog removals.
4. Any frogs observed in the disturbance footprint will immediately be removed from the area. All frogs removed will be recorded (total number and date removed) and reported to Rori Paloski (rori.paloski@wi.gov) at the conclusion of the project.
5. All dead amphibians and reptiles found on site will be recorded (species, approximate age, possible cause of death), photographed, and reported to Rori Paloski (rori.paloski@wi.gov) at

the conclusion of the project.

6. Erosion control will be implemented as required by DNR and Waukesha County permits. Erosion control mats, if needed, will be biodegradable. Mats will be netless or netted with loose weave and movable (not fixed or welded) joints between the horizontal and vertical twines, thus allowing the twines to move independently.
7. Upon completion of the project, all areas of temporary disturbance will be restored using seed mixes to establish mesic prairie, wet prairie, and sedge meadow native plant communities. Vegetation that grows to approximately 3 feet or less will be used for the 75 feet around the ponds, to create habitat for the Cricket Frog. The overall seed mix that will be used on the site is attached.

Jeopardy Assessment

The proposed activity will minimize and mitigate impacts to the Blanchard's cricket frog and as a result, we anticipate that take of this species will be low. The department has determined that the proposed activity is not likely to appreciably reduce the likelihood of the survival or recovery of the Blanchard's cricket frog within the state, the whole plant-animal community of which it is a part or the habitat that is critical to its existence.

Table 1: Sedge Meadow Seed Mix

Wildflowers		Oz/Acre
<i>Acorus calamus</i>	Sweet Flag	0.50
<i>Alisma subcordatum</i>	Mud Plantain	1.25
<i>Anemone canadensis</i>	Meadow Anemone	0.75
<i>Angelica atropurpurea</i>	Great Angelica	1.50
<i>Asclepias incarnata</i>	Marsh (Red) Milkweed	2.50
<i>Aster novae-angliae</i>	New England Aster	0.25
<i>Aster puniceus</i>	Swamp Aster	0.50
<i>Baptisia leucantha (alba)</i>	White Wild Indigo	1.00
<i>Bidens frondosa</i>	Common Beggar's Tick	1.25
<i>Cassia hebecarpa</i>	Wild Senna	4.00
<i>Eupatorium maculatum</i>	Spotted Joe Pye Weed	0.50
<i>Eupatorium perfoliatum</i>	Boneset	0.25
<i>Helenium autumnale</i>	Sneezeweed	0.50
<i>Helianthus giganteus</i>	Tall Sunflower	0.25
<i>Helianthus grosseserratus</i>	Sawtooth Sunflower	0.50
<i>Hypericum pyramidatum</i>	Great St. John's Wort	0.25
<i>Iris virginica shrevei</i>	Southern Blue Flag Iris	4.00
<i>Liatris spicata</i>	Marsh Blazing Star	1.00
<i>Lobelia cardinalis</i>	Cardinal Flower	0.50
<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.25
<i>Lycopus americanus</i>	Water Horehound	0.25
<i>Napaea dioica</i>	Glade Mallow	4.00
<i>Penthorum sedoides</i>	Ditch Stonecrop	0.05
<i>Physostegia virginiana</i>	Obedient Plant	0.50
<i>Pycnanthemum virginianum</i>	Mountain Mint	0.25
<i>Rudbeckia hirta</i>	Black-Eyed Susan	1.00
<i>Rudbeckia laciniata</i>	Wild Golden Glow	1.50
<i>Rudbeckia subtomentosa</i>	Sweet Black-Eyed Susan	0.75
<i>Sagittaria latifolia</i>	Common Arrowhead	1.25
<i>Silphium perfoliatum</i>	Cup Plant	3.00
<i>Silphium terebinthinaceum</i>	Prairie Dock	4.00
<i>Solidago graminifolia</i>	Grass-Leaved Goldenrod	0.10
<i>Solidago ohioensis</i>	Ohio Goldenrod	0.25
<i>Solidago riddellii</i>	Riddell's Goldenrod	1.00
<i>Sparganium eurycarpum</i>	Great Bur Reed	6.00
<i>Thalictrum dasycarpum</i>	Purple Meadow Rue	1.00
<i>Verbena hastata</i>	Blue Vervain	0.25
<i>Vernonia fasciculata</i>	Ironweed	0.50
Grasses, Sedges, & Rushes		Oz/Acre
<i>Andropogon gerardii</i>	Big Bluestem	8.00
<i>Bromus ciliatus</i>	Fringed Brome	16.00
<i>Calamagrostis canadensis</i>	Blue Joint Grass	0.75
<i>Carex bebbii</i>	Bebb's Oval Sedge	0.50

<i>Carex bicknellii</i>	Copper-Shouldered Oval Sedge	1.00
<i>Carex comosa</i>	Bristly Sedge	1.00
<i>Carex crinita</i>	Fringed Sedge	0.50
<i>Carex hystericina</i>	Porcupine Sedge	0.25
<i>Carex lacustris</i>	Common Lake Sedge	0.50
<i>Carex spengelii</i>	Long-Beaked Sedge	0.25
<i>Carex stipata</i>	Common Fox Sedge	0.50
<i>Carex stricta</i>	Tussock Sedge	0.25
<i>Carex vulpinoidea</i>	Brown Fox Sedge	0.25
<i>Glyceria canadensis</i>	Rattlesnake Grass	1.00
<i>Glyceria grandis</i>	Reed Manna Grass	1.50
<i>Glyceria striata</i>	Fowl Manna Grass	1.00
<i>Juncus dudleyi</i>	Dudley's Rush	0.10
<i>Juncus tenuis</i>	Path Rush	0.10
<i>Juncus torreyi</i>	Torrey's Rush	0.10
<i>Leersia oryzoides</i>	Rice Cut Grass	4.00
<i>Panicum virgatum</i>	Switchgrass	4.00
<i>Scirpus acutus</i>	Hard-Stem Bulrush	2.00
<i>Scirpus atrovirens</i>	Dark-Green Bulrush	0.20
<i>Scirpus cyperinus</i>	Wool Grass	0.10
<i>Scirpus validus</i>	Great Bulrush	1.00
<i>Spartina pectinata</i>	Prairie Cordgrass	4.00

Table 2: Wet Prairie Seed Mix

Wildflowers		Oz/Acre
<i>Anemone canadensis</i>	Meadow Anemone	0.50
<i>Asclepias incarnata</i>	Marsh (Red) Milkweed	4.00
<i>Aster novae-angliae</i>	New England Aster	1.00
<i>Aster puniceus</i>	Swamp Aster	1.00
<i>Baptisia leucantha (alba)</i>	White Wild Indigo	2.00
<i>Cassia hebecarpa</i>	Wild Senna	6.00
<i>Eupatorium maculatum</i>	Spotted Joe Pye Weed	0.40
<i>Eupatorium perfoliatum</i>	Boneset	0.50
<i>Gentiana andrewsii</i>	Bottle Gentian	0.10
<i>Helenium autumnale</i>	Sneezeweed	0.25
<i>Heliopsis helianthoides</i>	Early Sunflower	1.50
<i>Liatris spicata</i>	Marsh Blazing Star	1.00
<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.50
<i>Mimulus ringens</i>	Monkey Flower	0.25
<i>Monarda fistulosa</i>	Wild Bergamot	2.00
<i>Parthenium integrifolium</i>	Wild Quinine	1.00
<i>Pycnanthemum virginianum</i>	Mountain Mint	0.25
<i>Ratibida pinnata</i>	Yellow Coneflower	3.00
<i>Silphium terebinthinaceum</i>	Prairie Dock	1.00
<i>Solidago graminifolia</i>	Grass-Leaved Goldenrod	0.10
<i>Solidago ohioensis</i>	Ohio Goldenrod	1.00
<i>Solidago riddellii</i>	Riddell's Goldenrod	1.50
<i>Verbena hastata</i>	Blue Vervain	1.50
<i>Veronicastrum virginicum</i>	Culver's Root	0.25
<i>Zizia aurea</i>	Golden Alexanders	4.00
Grasses, Sedges, & Rushes		Oz/Acre
<i>Bromus ciliatus</i>	Fringed Brome	32.00
<i>Carex bebbii</i>	Bebb's Oval Sedge	1.00
<i>Carex crawfordii</i>	Crawford's Sedge	0.40
<i>Carex crinita</i>	Fringed Sedge	1.00
<i>Carex scoparia</i>	Lance-Fruited Oval Sedge	0.50
<i>Carex stipata</i>	Common Fox Sedge	3.00
<i>Carex vulpinoidea</i>	Brown Fox Sedge	1.50
<i>Elymus virginicus</i>	Virginia Wild Rye	48.00
<i>Glyceria canadensis</i>	Rattlesnake Grass	3.00
<i>Glyceria grandis</i>	Reed Manna Grass	2.50
<i>Scirpus pendulus</i>	Red Bulrush	0.50

Table 3: Mesic Prairie Seed Mix

Wildflowers		Oz/Acre
<i>Allium cernuum</i>	Nodding Onion	4.00
<i>Amorpha canescens</i>	Leadplant	2.00
<i>Aster azureus</i>	Sky Blue Aster	1.00
<i>Aster novae-angliae</i>	New England Aster	1.00
<i>Baptisia leucantha (alba)</i>	White Wild Indigo	2.00
<i>Coreopsis palmata</i>	Prairie Coreopsis	1.50
<i>Coreopsis tripteris</i>	Tall Coreopsis	1.00
<i>Dalea candida</i>	White Prairie Clover	3.00
<i>Dalea purpurea</i>	Purple Prairie Clover	2.50
<i>Desmodium canadense</i>	Canada Tick Trefoil	2.00
<i>Echinacea pallida</i>	Pale Purple Coneflower	4.00
<i>Echinacea purpurea</i>	Purple Coneflower	6.00
<i>Eryngium yuccifolium</i>	Rattlesnake Master	2.50
<i>Helianthus grosseserratus</i>	Sawtooth Sunflower	0.50
<i>Heliopsis helianthoides</i>	Early Sunflower	8.00
<i>Liatris pycnostachya</i>	Prairie Blazing Star	3.00
<i>Monarda fistulosa</i>	Wild Bergamot	2.00
<i>Penstemon digitalis</i>	Foxglove Beard Tongue	0.50
<i>Potentilla arguta</i>	Prairie Cinquefoil	0.20
<i>Pycnanthemum virginianum</i>	Mountain Mint	0.20
<i>Ratibida pinnata</i>	Yellow Coneflower	2.25
<i>Rudbeckia hirta</i>	Black-Eyed Susan	3.50
<i>Rudbeckia subtomentosa</i>	Sweet Black-Eyed Susan	2.00
<i>Silphium laciniatum</i>	Compass Plant	2.00
<i>Silphium perfoliatum</i>	Cup Plant	2.50
<i>Solidago graminifolia</i>	Grass-Leaved Goldenrod	0.20
<i>Solidago rigida</i>	Stiff Goldenrod	1.25
<i>Verbena hastata</i>	Blue Vervain	1.50
<i>Veronicastrum virginicum</i>	Culver's Root	0.20
Grasses, Sedges, & Rushes		Oz/Acre
<i>Andropogon gerardii</i>	Big Bluestem	24.00
<i>Bouteloua curtipendula</i>	Side Oats Grama	16.00
<i>Carex bicknellii</i>	Copper-Shouldered Oval Sedge	1.50
<i>Elymus canadensis</i>	Canada Wild Rye	32.00
<i>Elymus virginicus</i>	Virginia Wild Rye	32.00
<i>Juncus tenuis</i>	Path Rush	0.20
<i>Panicum virgatum</i>	Switchgrass	8.00
<i>Schizachyrium scoparium</i>	Little Bluestem	12.00
<i>Sorghastrum nutans</i>	Indian Grass	24.00

Table 4: Wooded Wetland Seed Mix

Grasses/Sedges/Rushes		Oz/Acre
<i>Bolboschoenus fluviatilis</i>	River Bulrush	1.00
<i>Calamagrostis canadensis</i>	Canada Blue-joint	2.00
<i>Carex bebbii</i>	Bebb's Oval Sedge	1.00
<i>Carex hystericina</i>	Bottle Brush Sedge	1.00
<i>Carex stipata</i>	Common Fox Sedge	1.00
<i>Carex vulpinoidea</i>	Brown Fox Sedge	1.00
<i>Echinochloa walteri</i>	American Barnyard Grass	8.00
<i>Elymus virginicus</i>	Virginia Wild Rye	40.00
<i>Elymus riparius</i>	Riparian Wild Rye	8.00
<i>Glyceria grandis</i>	reed Manna Grass	1.00
<i>Leersia oryzoides</i>	Rice Cut Grass	1.00
<i>Panicum virgatum</i>	Switch Grass	32.00
<i>Poa palustris</i>	Fowl Blue grass	16.00
<i>Scirpus atrovirens</i>	Dark Green Bulrush	8.00
Shrubs		#/Acre
<i>Cephalanthus occidentalis</i>	Buttonbush	25-50
<i>Cornus amomum</i>	Silky dogwood	25-50
<i>Cornus racemosa</i>	Grey dogwood	25-50
<i>Cornus stolonifera</i>	Red-osier dogwood	25-50
<i>Viburnum lentago</i>	Nannyberry	25-50
<i>Salix sp.</i>	Willows	25-50